

Application No.: 10/552,200
Docket No.: FA1159 USPCT

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Correction to Specification

1. Delete the current Abstract and substitute therefor an amended Abstract provided on a separate sheet attached to this response.

2. Insert the following text on page 5, line 2:

BRIEF DESCRIPTION OF DRAWING

Figure 1 is a schematic representation of the various components of a color characterizing device of the present invention.

Figure 2 shows the comparison of the theoretical spectral curves (line with data points) that would result by using the matched coating composition containing the preliminary colorant combinations of Formula 1 with the measured spectral curve from the target portion of the target coating (solid smooth line).

Figure 3 shows the comparison of the theoretical spectral curves (line with data points) that would result by using the matched coating composition containing the preliminary colorant combinations of Formula 2 with the measured spectral curve from the target portion of the target coating (solid smooth line).

Figure 4 shows the comparison of the theoretical spectral curves (line with data points) that would result by using the matched coating composition containing the preliminary colorant combinations of Formula 3 with the measured spectral curve from the target portion of the target coating (solid smooth line).

3. Amend the paragraph on line 3 on page 24 in the following manner:

The following graphs Figures 2 through 4 compare the theoretical spectral curves (line with data points) that would result by using the matched coating compositions containing the preliminary colorant combinations of Formula 1 of Figure 2, Formula 2 of Figure 3 and Formula 3 of Figure 4 with the measured spectral curve from the target portion of the target coating (solid smooth line).

4. Delete the graph on page 25 and "Formula 1" at line 5 on page 25.

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5. Delete the graph on page 26 and "Formula 2" at line 5 on page 26.

6. Delete the graph on page 27 and "Formula 3" at line 8 on page 27.

7. Amend the paragraphs starting from line 12 to 33 on page 42 in the following manner:

The present invention is also directed to a color characterizing device 1 shown in Figure 1 for producing a matched coating composition for a specified end-use. [[The device]] Device 1 comprises:

- (i) a spectrophotometer 2 of [[the]] device 1, such as a conventional multi-angle spectrophotometer or sphere geometry spectrophotometer, having a base for positioning [[the]] spectrophotometer 2 over a target portion of a target coating;
- (ii) means for calculating target color (L,a,b or L,C,h) values of the target portion;
- (iii) a computer usable storage medium 4 located in a computer 6 of [[the]] device 1 having computer readable program code means residing therein, the computer readable program code means comprising:
 - (a) means for configuring computer readable program code devices to cause [[the]] computer 6 to select one or more preliminary colorant combinations from a stored list of known colorants in accordance with a combinatorial selection criteria to match with the target color space values;
 - (b) means for configuring computer readable program code devices to cause [[the]] computer 6 to determine concentration of each the known colorant in each of the preliminary colorant combinations in accordance with color matching criteria wherein the concentration of each the known colorant is optimized for optimal match of color values of each of the preliminary colorant combinations with the target color values;

8. Amend page 43 in the following manner:

- (d) means for configuring computer readable program code devices to cause [[the]] computer 6 to balance the preliminary colorant combinations to allow for the presence of non-colorant components in the matched coating composition to generate

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one or more viable combinations optimized in accordance with mixing and regulatory criteria developed for the specified end-use; and

(e) means for configuring computer readable program code devices to cause ~~[[the]]~~ computer 6 to select an optimal viable combination from the viable combinations in accordance with an acceptability equation for the specified end-use, the optimal viable combination having an optimal acceptability value for the specified end-use wherein the known colorants and non-colorant components when mixed in accordance with the optimal viable combination produce the matched coating composition that when applied as a matched coating visually matches with the appearance of the target coating.

~~[[The device]]~~ Device 1 further comprises means for configuring computer readable program code devices to cause ~~[[the]]~~ computer 6 to display on a screen of a monitor 8 of ~~[[the]]~~ device 1 the optimal viable combination.

~~[[The device]]~~ Device 1 can further comprise:

(a) means for configuring computer readable program code devices to cause ~~[[the]]~~ computer 6 to generate a signal in accordance with the optimal viable combination to dispense the components for making a desired amount of the matched coating composition;

(b) a dispenser 10 for dispensing the components in a container 12, ~~[[the]]~~ dispenser 10 being in communication with ~~[[the]]~~ computer 6;

(c) means for configuring computer readable program code devices to cause ~~[[the]]~~ computer 6 to generate a signal upon completion of making the desired amount of the matched coating composition; and

(d) means for configuring computer readable program code devices to cause ~~[[the]]~~ computer 6 to generate a signal to ~~[[the]]~~ dispenser 10 to stop dispensing of the components.

~~[[The device]]~~ Device 1 can further comprise a mixer, not shown in Figure 1, for mixing the components dispensed in ~~[[the]]~~ container 12.

9. Amend the paragraph starting from line 1 to 3 on page 44 in the following manner:

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[[The device]] Device 1 of the present invention is a preferably transportable device to permit ready positioning of [[the]] spectrophotometer 2 of [[the]] device 1 on substrate of various shapes, such as automotive body.

10. Amend the paragraphs starting from line 10 to 33 on page 44 in the following manner:

[[the]] Computer 6 suitable for use in the present invention can be any conventional computer/processor such as those supplied by Dell Computer Corporation, Round Rock, Texas or IBM Corporation, Armonk, New York that can be configured to execute conventional computer program codes. For example, Model No. Dimension™ 4100 supplied by Dell Computer Corporation utilizing Windows® XP operating system supplied by Microsoft Corporation located in Redmond, Washington can be utilized.

The present method is equally well suited for using a computer set up wherein [[the]] computer 6 of [[the]] device 1 is in communication with a host computer, not shown. It would be understood that the communication between the host computer and [[the]] computer 6 of [[the]] device 1 can be through a modem or via a website. Moreover, the database of the stored list of known colorants can reside either on a storage device of [[the]] computer 6 of [[the]] device 1 or on a storage device of the host computer. It should be understood that [[the]] computer 6 of [[the]] device 1 and the host computer can be located anywhere, such as for example [[the]] computer 6 of [[the]] device 1 can be located in one country, such as the United States, or another state and the host computer can be located in another country, such as Canada, or another state. Alternatively, the host computer can be located in one country, such as United States, or another state and [[the]] computer 6 of [[the]] device 1 can be located in another country, such as Canada, or another state. It should be further understood that the host computer could be in communication with plurality of [[the]] computers 6 of [[the]] devices 1 being used.